

-- 30. (NEW) A method for producing an antibody against an HIV-1 type O virus comprising:

(a) inoculating an animal with an HIV-1 Env polypeptide comprising an amino acid sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGluIleLysIleGlyProMetAlaTrpTyrSerMetGlnIle
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeulleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys
AsnArgLeulleCys (SEQ ID NO:6);

ArgAlaArgLeuLeuAlaLeuGluThrPhelleGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCys
LysAsnArgLeulleCysTyrThrSerValLysTrpAsnLysThr (SEQ ID NO:7);

LysGluIleLysIle (SEQ ID NO:23);

GluArgGluGlyLysGlyAlaAsn (SEQ ID NO:24);

CysValArgProGlyAsnAsnSerValLysGluIleLysIle (SEQ ID NO:25);

GlnIleGluArgGluGlyLysGlyAlaAsnSerArg (SEQ ID NO:26);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeu (SEQ ID NO:29);

LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly
LysAlalleCysTyrThrSer (SEQ ID NO:33);

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlaIleCysTyrThrSerValGlnTrp
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41) and

(b) isolating an antibody that binds to said HIV-1 Env polypeptide.

31. (NEW) The method of claim 30, wherein said method comprises isolating serum from said animal.

32. (NEW) A kit for the detection of antibodies against an HIV-1 type O virus in a biological sample comprising:

(a) a polypeptide comprising an amino acid sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGlulleLysIleGlyProMetAlaTrpTyrSerMetGlnIle
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeulleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys
AsnArgLeulleCys (SEQ ID NO:6);

ArgAlaArgLeuLeuAlaLeuGluThrPhelleGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCys
LysAsnArgLeulleCysTyrThrSerValLysTrpAsnLysThr (SEQ ID NO:7);

LysGlulleLysIle (SEQ ID NO:23);

GluArgGluGlyLysGlyAlaAsn (SEQ ID NO:24);

CysValArgProGlyAsnAsnSerValLysGlulleLysIle (SEQ ID NO:25);

GlnIleGluArgGluGlyLysGlyAlaAsnSerArg (SEQ ID NO:26);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeu (SEQ ID NO:29);

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly
LysAlalleCysTyrThrSer (SEQ ID NO:33);

GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrp
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41) and

(b) a detection reagent.

33. (NEW) The kit of claim 32, further comprising a negative control sample.

34. (NEW) The kit of claim 32, further comprising an incubation buffer.

35. (NEW) A method for preparing a lysate of an HIV-1 virus comprising:

(a) separating an HIV-1 virus from cells infected with said virus and

(b) lysing said virus,

wherein said virus comprises an Env protein that comprises an amino acid
sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGlulleLyslleGlyProMetAlaTrpTyrSerMetGlnlle
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeulleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys
AsnArgLeulleCys (SEQ ID NO:6);

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

ArgAlaArgLeuLeuAlaLeuGluThrPhelleGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCys
LysAsnArgLeulleCysTyrThrSerValLysTrpAsnLysThr (SEQ ID NO:7);

LysGlulleLyslle (SEQ ID NO:23);

GluArgGluGlyLysGlyAlaAsn (SEQ ID NO:24);

CysValArgProGlyAsnAsnSerValLysGlulleLyslle (SEQ ID NO:25);

GlnlleGluArgGluGlyLysGlyAlaAsnSerArg (SEQ ID NO:26);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeu (SEQ ID NO:29);

LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly
LysAlalleCysTyrThrSer (SEQ ID NO:33);

GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrp
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41).

36. (NEW) The method of claim 35, further comprising pelleting said virus by
centrifugation.

37. (NEW) The method of claim 35, further comprising isolating nucleic acid
from said virus. --

FINNEGAN
HENDERSON
FARABOW
CARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com